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09/833,942	04/12/2001	Lawrence J. Mann	56319USA3A	3232
32692	7590	01/13/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			SALVATORE, LYNDA	
		ART UNIT	PAPER NUMBER	
		1771		

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/833,942

Filing Date: April 12, 2001

Appellant(s): MANN ET AL.

Daniel D. Biesterveld  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed October 25<sup>th</sup>, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Grounds of Rejection to be Reviewed on Appeal***

1. Claims 23-26,28,29,31-33, 35,36 and 48 stand rejected under 35 U.S.C. 103(a) as obvious over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504. This rejection is set forth in a prior Office Action, mailed on April 20<sup>th</sup> 2004.

2. Claims 30 and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504 as applied to claims 23 and 31 above.

**(7) *Prior Art of Record***

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6,528,154 Yamato 03-2003

6,406,504 Lise et al. 06-2002

**(8)      *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

1.      Claims 23-26,28,29,31-33, 35,36 and 48 are rejected under 35 U.S.C. 103(a) as obvious over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504. This rejection is set forth in a prior Office Action, mailed on April 20<sup>th</sup> 2004.

The patent issued to Yamato teaches adhering synthetic rubber particles to the surface of a foam substrate through an adhesive layer (Column 1, 50-55 and Column 2, 5-10). Suitable rubber particle forming materials include styrene butadiene rubber (Column 2, 22-25). In one embodiment Yamato explicitly teaches coating the surface of a rubber sponge with a binder and then a silicone resin having an average particle size of 4.5 microns (Column 3, 1-9). Thus, it is the of the Examiner position that Yamato teaches all of the structural limitations of the instant invention.

Although, Yamato does not explicitly teach the Shore A hardness range of the rubber particles as set forth in claims 23,25,31, and 48 it is reasonable to presume that said property is inherent to the styrene butadiene particles of Yamato. Support for said presumption is found in the use of like materials such as the butadiene rubber particles affixed to the surface of a foam substrate. The burden is upon the Applicant to prove otherwise.

With regard to the limitation particle diameter or length in range of about .05mm to 4mm as set forth in claim 48, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size

to provide the desired frictional properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Yamato fails to teach the claimed binder composition, however, the patent issued to Lise et al., teaches a abrasive article comprising an abrasive particle coated foam substrate Abstract and Column 3, 51-55). Lise et al., teaches using a flexible precursor make coat to the foam substrate to adhesively bond the abrasive particles (Column 5, 30-35). Suitable precursor make coating compositions include the claimed nitrile rubber (Column 5, 30-35).

Therefore it would have been obvious to one having ordinary skill in the art to adhere the styrene butadiene rubber particles of Yamato with the nitrile rubber make coat of Lise et al., to provide a flexible abrasive article. Motivation to specifically form a flexible abrasive article is found in the teachings of Yamato wherein the invention is directed to providing a makeup-sponge puff suitable for use on the skin surface. As such, having such a flexible abrasive article would be highly desirable.

Although, Lise et al; does not explicitly teach the glass transition range of the binder coating as set forth in claims 23,28,29,31,35,36 and 48, it is reasonable to presume that said property is inherent to the nitrile rubber precursor make coat of Lise et al. Support for said presumption is found in the use of like materials such as the claimed nitrile rubber coating used to adhere the abrasive particles to the surface of a foam substrate. The burden is upon the Applicant to prove otherwise.

2. Claims 30 and 37 are rejected under 35 U.S.C. 103(a) as obvious over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504. This rejection is set forth in a prior Office Action, mailed on April 20<sup>th</sup> 2004.

With regard to the limitation of an aspect ratio range of 1:1 to about 2:1 and particle diameter or length in range of about .05mm to 4mm as set forth in the above aforementioned claims, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

**(9) *Response to Argument***

1. Applicant traverses the rejection of claims 23-26,28,29,31-33, 35,36 and 48 rejected under 35 U.S.C. 103(a) as obvious over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504 on the grounds that the combination of prior art relied upon is non-analogous. As such, Applicant asserts that no motivation exists to combine the references of Yamato and Lise et al. Specifically the primary reference of Yamato is directed to a facial makeup sponge whereas the secondary reference of Lise et al., and the instant invention are directed to cleaning articles. Applicant submits that since the Yamato is from a different field of endeavor as Lise et al., one of ordinary skill in the art would not look to Lise et al., for suitable binders to fix rubber particles to the surface of a foam substrate for use as facial sponge (Brief, Section VII, spanning pages 8-10). In response, Applicant's recitation of "cleaning article" recited in the preamble is intrepreted in the broadest possible sense and is furthermore considered an intended use. Applicant has not

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set forth any limitations other than the recitation of “cleaning article” that would serve to distinguish the instantly claimed “cleaning article” from any other foam layer comprising the claimed plurality of rubber particles. In other words, it is the position of the Examiner that any article meeting the structural and/or chemical limitaitons set forth could function in the desired cleaning capacity. Thus, it is irrevlevant that the primary reference of Yamoto is directed to a facial sponge. Because the facial sponge of Yamoto teaches the strutural and/or chemical limitations set forth by Applicant, it must be capable of functioning as a “cleaning article”. To that end, the Examiner maintains that the patent issued to Yamato presently teaches all of the chemical and/or structural features of the instantly claimed invention except for the specific claimed binder material. Yamato does teach employing an adhesive binder to fix the rubber particles to the foam substrate, but fails to teach the claimed nitrile rubber binder. Thus, the Examiner further maintains that is proper to look to the prior art to identify binders which are suitable for adhering particles to foam substrates. Moreover, the Examiner asserts that one of ordinary skill in the art would be motivated to look to the prior art to indentify such binders especially in light of the fact that Yamoto does not teach any specific binder. Hence, the secondary reference of Lise et al., was soley relied upon as a teaching to using a binder coating to fix particles to foam substrates. Although, Lise et al., may technically be from a different field of endeavor as Yamato, both references teach adhering particles with a binder to foam substrates. Lise et al., specifically teaches using a flexible coating comprising the claimed nitrile rubber to fix abrasive rather than rubber particles to a foam substrate for use as a cleaning article. Moreover, the Examiner maintains that such a flexible coating would be desirable for use in facial sponge. The Examiner understands that the

determination that a reference is from a nonanalogous art is twofold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Wood*, 202 USPQ 171,174. In the instant case, it appears that Applicant is employing the claimed nitrile rubber binder to solve the problem of fixing particles to a foam substrate.

With regard to the Shore A hardness and glass transition temperature ranges set forth in claims 23,25,28,29,31,35,36 and 48, Yamato and Lise et al., fail to teach these properties. However, the Examiner maintains that since Yamato teaches particles formed from the claimed styrene butadiene and Lise et al., teaches the claimed nitrile rubber binder coating, said Shore A hardness and temperature ranges would be inherent to the respective materials. Stated differently, the Examiner maintains that the styrene butadiene particles and nitrile rubber coating taught by Yamato and Lise et al., respectively would be expected to have the claimed Shore A hardness and glass temperature ranges. Since Applicant did not traverse this position or provide factual objective evidence to prove otherwise, Applicant concedes that the styrene butadiene particles and nitrile rubber binder coating taught by Yamato and Lise et al., respectively have the claimed Shore A hardness and glass transition temperatures ranges.

2. Applicant traverses the rejection of claims 30 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamato, US 6,528,154 in view of Lise et al., US 6,406,504 as applied to claims 23, and 31 above. Applicant maintains that the combination of prior art relied upon is non-analogous and as such no motivation exists to combine references to form the obviousness type rejection set forth above. Since the

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rejection of claims 23 and 31 from which claims 30 and 37 depend is maintained, the Examiner further maintains that it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the aspect ratio and particle size to provide the desired frictional properties. For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



ls  
January 10, 2005

Conferees

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